

MEMORANDUM FOR CHIEF SAD Regional Integration Team, Attn: Mr. Hardesty

Subject: Mississippi Coastal Improvements Project, Hancock, Harrison, and Jackson Counties, Mississippi, Interim Report—Draft Final Chief of Engineers Report, Project Report Summary, and Documentation of Review Findings

HQUSACE policy compliance assessment of subject report is complete. The draft final report of the Chief of Engineers, Project Report Summary, and Documentation of Review Findings for the subject project is enclosed. Questions should be addressed to Jay Warren, the HQUSACE review manager, 202-761-5450.

Encl
As

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Policy and Policy Compliance Division
Directorate of Civil Works

DOCUMENTATION OF REVIEW FINDINGS

MISSISSIPPI COASTAL IMPROVEMENTS PROJECT

HANCOCK, HARRISON, AND JACKSON COUNTIES, MISSISSIPPI

FINAL INTERIM FEASIBILITY REPORT
AND
FINAL ENVIRONMENTAL ASSESSMENT

AUGUST 2006

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Subject: Mississippi Coastal Improvements Project (MsCIP), Hancock, Harrison, and Jackson Counties, Mississippi, Final Interim Feasibility Report and Environmental Assessment (August 2006)—Documentation of Review Findings

DOCUMENTATION OF REVIEW FINDINGS

MISSISSIPPI COASTAL IMPROVEMENTS PROJECT

HANCOCK, HARRISON, AND JACKSON COUNTIES, MISSISSIPPI

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DOCUMENTATION OF REVIEW FINDINGS

MISSISSIPPI COASTAL IMPROVEMENTS PROGRAM (MsCIP)
HANCOCK, HARRISON, AND JACKSON COUNTIES, MISSISSIPPI
Near-Term Improvements
FINAL INTERIM REPORT AND ENVIRONMENTAL ASSESSMENT
(August 2006)

1. BACKGROUND

a. Location. The project area consists of coastal Mississippi, in Hancock, Harrison, and Jackson Counties.

b. Problem. Hurricane Katrina struck the coasts of Louisiana, Mississippi, and Alabama on August 29, 2005. The still water storm surge from hurricane Katrina measured about 24 feet above mean sea level at two locations in coastal Mississippi. Approximately, 800 square miles of the immediate coast were inundated. Two hundred thirty-six (236) deaths were reported statewide, and 67 were reported missing. The storm surge caused severe damage to residences, businesses, port facilities, highways, bridges, and utilities, as well as, environmental resources of the area. Total damages incurred along the Mississippi coast are estimated at over \$125 billion. The storm destroyed 65,380 homes and resulted in 141,000 insurance claims in the three-county area.

c. Study Authorization. The Mississippi Coastal Improvements Program Interim Report was authorized by the Department of Defense Appropriations Act, 2006 (P.L. 109-148) 30 December 2005. The study authorization states in part: "...using \$10,000,000 of the funds provided, the Secretary shall conduct an analysis and design for comprehensive improvements or modifications to existing improvements in the coastal area of Mississippi in the interest of hurricane and storm damage reduction, prevention of saltwater intrusion, preservation of fish and wildlife, prevention of erosion, and other related water resource purposes at full Federal expense; Provided further, that the Secretary shall recommend a cost-effective project, but shall not perform an incremental benefit-cost analysis to identify the recommended project, and shall not make project recommendations based upon maximizing net national economic development benefits; Provided further, that interim recommendations for near term improvements shall be provided within 6 months of enactment of this act with final recommendations within 24 months of this enactment."

d. Report Recommendations. The current document is a partial response to the study authorization. The Interim Report recommends 15 near-term projects that are primarily focused on assisting in the recovery of basic infrastructure and services. In general, the near-term projects are limited in scope and complexity, focusing on a discrete portion of

the Mississippi Coast with limited design goals. The Interim Report also identifies studies and actions needed to develop a comprehensive plan of improvements for coastal Mississippi. The comprehensive plan will generally focus on the entire of Coastal Mississippi. Project components of the comprehensive plan are expected to be large and complex in nature, and will likely include innovative technologies. Development of the comprehensive plan of improvements is ongoing. Brief descriptions of the 15 near-term projects are contained in the Summary Report.

e. Project Cost. The draft report cites the total cost of the 15 near-term projects as \$117,370,000.

f. Cost-Effectiveness Analyses. In keeping with the study authorization, the near-term projects represent the most cost-effective alternatives to provide stated goals based on limited sets of alternative solutions. For example: If the stated project goal is to provide erosion protection for a 2000-foot section of roadway. The engineering analysis might investigate providing protection using vinyl sheet pile, riprap, or a timber bulkhead. The alternative that provides the least life-cycle cost, or in the case of project with environmental outputs, the best return for the investment, has been recommended for implementation.

2. COST SHARING / PROJECT COSTS

a. Cost-Sharing (Section 5.2). Cost sharing formulas are set by law—specifically, WRDA 1986 and WRDA 1996. Deviations from the cost sharing identified in these WRDAs require an act of Congress. In the case of the Comprehensive Everglades Restoration Program cost sharing is set at 50 percent Federal and 50 percent non-Federal because WRDA 2000 established in law 50/50 cost sharing on these projects. However the report should not identify it as “tragic” if Congress decides not to amend the current law on cost sharing. Delete the second paragraph of Section 5.2 from the report.

Response 2a: The second paragraph has been deleted.

HQUSACE Team Assessment: This issue will be resolved by revising the first paragraph of section 5.3 Cost Sharing to delete references to non-standard cost sharing. Delete the last two sentence of the first paragraph of Section 5.3, page 163. Insert revised pages or a report addendum.

b. Project Cost. The Total Project Costs could be understated due to incorrect amounts reflected on Table ES-1 and Table 5-1 for some projects. Also, the costs for real estate reflected on numerous estimates do not matched the amounts stated in the real estate report. These costs should be verified and corrected as necessary. The following discrepancies are noted:

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Project Cost Issues:

Project	Table ES-1 & 5-1	Cost estimate	Cost Difference
Hancock County Streams	\$3,750,000	\$6,890,000	\$3,140,000
Jackson Marsh	\$3,430,000	\$3,060,000	\$370,000
Coward Point	\$3,960,000	\$4,000,000	\$40,000

Real Estate Cost Issues:

Project	Real Estate Report	Cost estimate	Cost Difference
Bayou Caddy	\$525,000	\$150,000	\$375,000
Hancock County Beaches	\$150,000	\$200,000	\$50,000
Clermont Harbor	\$200,000	\$112,000	\$88,000
Long Beach Canals	\$975,000	\$0	\$975,000
Courthouse Road	\$525,000	\$300,000	\$225,000
Gautier Coastal Streams	\$1,012,500	\$750,000+	\$250,000+

Response 2b: Revisions to both real estate estimates and construction costs, mandated by elimination of the cost escalation, and correction of discrepancies has resulted in both different individual and total cost estimates. All cost estimates have been reviewed for consistency, and current real estate and construction cost estimates provided. The real estate report has been revised to include the changes.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

c. Vinyl Sheet Plies. The costs for vinyl sheet piles could be overstated or understated due to inconsistency in pricing. One estimate shows the cost of piles at \$25/sf whereas other estimates shows unit price at \$31/sf. Verify pricing and provide rationale for using two different unit costs in estimating the vinyl sheet piles.

Response 2c: The unit costs for each were dependent on economies of scale inherent to the individual projects. Cowand Point and Clermont Harbor, the two projects costed at \$31/sf for vinyl sheet pile, would both be small projects with little economy of scale. All remaining projects utilizing vinyl sheet pile are much larger, resulting in a cost saving (@ \$25/sf) for materials. This issue was based on recent experience within Mobile District projects of a similar nature. This issue will be discussed in the revised Cost Estimating Appendix.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

d. Missing Cost Estimates. The cost estimates for Gautier Coastal Streams and Franklin Creek Floodway projects are missing. It is not very clear whether all cost

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components are included in the total cost for each project as stated in report. Verify that all cost components have been included in the estimate for each of the near-term project proposals. Provide cost estimates in the final interim report submittal.

Response 2d: Those cost estimates have also been revised, and are included in the revised Cost Estimating Appendix. All cost components were given a thorough review for quantities, unit costs, and overall engineering adequacy, and changes have been made where needed.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

e. Price Level Citations. The project cost estimates add an arbitrary 1-percent escalation amount to estimate October, 2006 price levels. This appears to be inappropriate. The estimates should be presented at current price levels and properly updated as required.

Response 2e: The cost escalation factor has been removed from all current cost estimates. All prices are stated in October 2006 price levels.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

f. Ecosystem Restoration Monitoring Costs. Section 5.5 indicates that monitoring costs associated with restoration features could cost as much as 10-percent of the total project costs. Given the non-complex nature of the restoration proposals the assigning 10-percent of the total project cost to monitoring may be excessive. Please reevaluate.

Response 2f: All adaptive management and monitoring costs have been limited to only ecosystem restoration components, and where that applies, limited to at most 3% of total project costs.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

3. ENVIRONMENTAL COORDINATION / ENVIRONMENTAL POLICY COMPLIANCE

a. SHPO Coordination. It does not appear that SHPO has yet been consulted. Early coordination should have occurred prior to release of draft report; the district should verify that coordination has begun.

Response 3a: Early coordination with the Mississippi Department of Archives and History (MDAH), State Historic Preservation Officer has occurred. Three MDAH staff

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participated in the MsCIP Interagency Regional Coordination meeting on April 7, 2006. MDAH received the MsCIP Draft Interim and Environmental Assessment and was requested to provide comments. Comments were prepared and subsequently misplaced during an office move. The SHPO agreed on 28 June to provide comments as soon as possible. These comments will be forwarded upon receipt by the District.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

b. Status of the Least Tern under the Endangered Species Act. The least tern (*Sterna antillarum*) is described throughout the Executive Summary, draft report and environmental assessment as a Federal listed species pursuant to the Endangered Species Act (ESA). As noted on the U.S. Fish and Wildlife Service web site, only the interior-dwelling populations of this bird are listed as endangered under the Act; coastal populations such as those occurring in the project study area are not included in the listing. The following USFWS web pages provide detailed information on this species.

- a) http://ecos.fws.gov/docs/life_histories/B07N.html
- b) http://ecos.fws.gov/species_profile/servlet/gov.doi.species_profile.servlets.SpeciesProfile?spcode=B07N#status

HQUSACE recommends that the District contact the local USFWS Ecological Services field office to confirm the ESA status of the least tern. In a related matter, Section 3.10 of the EA does not include the least tern among the listed species known to occur in the study area. Once confirmation of the ESA status of the least tern has been obtained from the USFWS, the appropriate sections of the report should be revised accordingly.

Response 3b: Concur. The project documents have been modified to show the correct status of the bird. The local USFWS confirmed that while not endangered, the Least tern is a species that is locally important and considered in planning purposes.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

c. Environmental Justice. The sections of the draft report and environmental assessment discussing Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, does not adequately address the steps that the District has taken with regard to compliance with the executive order. Section 3.14 of the EA contains a demographic breakdown of the study area, and briefly discusses past injustices suffered by the low-income and minority populations, but does not include a determination of the applicability of the executive order in the study area, and does not explain the actions needed, if any, that the Corps must take to comply with the order. The gist of the executive order is that a Federal action agency must make outreach efforts to contact any potentially affected low-income and minority populations, and solicit their views and concerns with regard to a proposed project. Once these views

and concerns have been obtained the action agency must make a determination as to whether any aspect of the proposed action would have a disproportionate effect on the populations of concern. A link to the policy and guidance page of the U.S. EPA environmental justice web site is provided because the Corps does not have detailed guidance on this issue. The EPA site is (<http://www.epa.gov/compliance/resources/policies/ej/index.html>).

Response 3c: Extensive effort was made to outreach to all groups. This public involvement effort is documented in the EA and Interim Report and in the Public Involvement Appendix. Two public involvement workshops were held in each of the three coastal counties. These meetings were announced by public affairs releases to the local media as well as personal contact with concerned individuals. Effort was made to reach persons displaced from their home through web postings. At each public input workshop, there were multiple methods for public input understanding that not everyone communicates their issues in the same way.

The destruction of Hurricane Katrina extended across coastal Mississippi. All demographic populations in the area were adversely affected. None of the recommendations contained in the Interim Report would negatively impact minority or low-income populations. In fact one of the recommendations, Franklin Creek Floodway, would benefit predominately low-income households that were significantly flooded by Hurricane Katrina.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

d. Significance of Ecosystem Restoration Outputs. The draft report does not contain an adequate discussion of the significance of the proposed ecosystem restoration measures described in the report and EA. HQUSACE recommends that the report and EA be revised to highlight the institutional, public, and technical significance of the wetlands to be restored, as discussed in section E-37 of ER 1105-2-100. While it is understood that most of the proposed ecosystem restoration actions are only replacing habitats and functions destroyed by hurricanes in 2005, justification is still required to warrant Federal investment in these actions.

Response 3d: A “System of Accounts” analysis was performed on the final array of alternatives developed for each problem area to identify the contributions to National Economic Development, Environmental Quality, Regional Economic Development, and Other Social Effects (emphasis added). The Interim Report has been revised to include a presentation of this information in a more obvious position. In addition to replacing habitats and functions, the recommended environmental restoration projects would prevent the further deterioration of significant coastal habitats and are more cost effective than having to completely restore the habitat at a later date.

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HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

e. Environmental Outputs. The individual project descriptions in the Executive Summary and main report have only minimal information concerning the environmental outputs of the proposed ecosystem restoration features. HQUSACE recommends that these sections include a reference to the site-specific discussions of habitat outputs and other environmental values of the individual projects that are found in the EA. Alternately, the main report could incorporate a summary of the habitat gains discussed in the EA. In any case, the ecosystem restoration outputs are an important component of the short-term plan, and adding references or summaries would help ensure that the target audience for this document (i.e., Congress) would be well aware of the environmental gains in the event that the whole report is not read cover-to-cover.

Response 3e: The Interim Report has been revised to better convey these important outputs. As described in the previous comment, the information within the system of accounts analysis has been brought forward in the Main Report. The report has been revised to better describe these important features. We concur that ecosystem outputs are an important component of the MsCIP Near Term Improvements. They are also important to the citizens of coastal Mississippi.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

4. **REAL ESTATE.**

a. Uniform Relocation Assistance. Section 4.1.15 in the Real Estate Appendix (REA) discusses the estimation of permanent relocation benefits (PL 91-646). The section notes that a family unit living together is equal to one occupant. It is important to note that in accordance with 49 CFR 24.403(a)(5), two or more occupants can maintain separate households within the same dwelling. If this is the case, then each would be entitled to separate relocation payments. Also, section 4.1.15 states that relocation costs are estimated based on the assumption that the owner and tenant occupants meet 180 and 90-day occupancy requirements. Please remember that even if an owner or tenant does not meet these occupancy requirements, 49 CFR 24.403(d) details that persons shall not be denied eligibility for a replacement housing payment solely because the person is unable to meet the occupancy requirements for a reason beyond his or her control, such as a disaster, an emergency.....as determined by the President,....., or the displacing Agency. These additional unknowns may affect the relocation assistance estimate.

For an additional reference, please refer to FHWA guidance provided on 6 Oct 2005 entitled: Uniform Act eligibility in areas impacted by Hurricane Katrina. The guidance discusses right of way acquisitions, and provides details specific to this disaster that will

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identify additional factors you should plan for when determining the replacement housing payment. The link is: <http://www.fhwa.dot.gov/realestate/katrinaguid.htm>

Response 4a: The real estate report has been revised clarifying the language. The high contingency that is applied should accommodate any additional claims of residency.

HQUSACE Team Assessment: The Franklin Creek Floodway section was rewritten and it clearly details options available to landowners under the Uniform Act. The text contained in the latest version of the REP **resolves** the concern.

b. Estates. Section 10 of the REA provides text of numerous standard estates that may be acquired for this improvement program. Please ensure that the estates accurately reflect what is provided in EC 405-1-11, Exhibit 5-29. For example, numerous sentences are left off the standard estate language for the temporary work area easement.

Response 4b: The information in Section 11 of the revised real estate report comes directly from the regulations.

HQUSACE Team Assessment: The estates found in the REP accurately reflect the standard estate language provided in EC 405-1-11. The revisions contained in the latest version of the REP **resolve** the concern.

c. The Report documents do not appear to address whether the subject program's 15 proposed projects are to be constructed at full federal expense or whether they will be cost- shared. It is noted that there are no potential local sponsors identified in the draft Report and accordingly there are no letters of intent from any potential sponsor.

Response 4c: Section 5.3 of the Interim Report addresses what the traditional cost-share would be under normal circumstances for each of the project purposes. At present the local communities do not have an existing tax base which would provide the revenues for cost-sharing. For this reason there are no letters of support available.

HQUSACE Team Assessment: The final interim report proposes cost haring formulas in accordance with the Water Resources Development Act of 1986, as amended. By letter dated August 10, 2006, the State of Mississippi stated its intent to act as non-Federal for design and construction of the proposed projects. This issue is **resolved**.

d. In addition the documents are not clear as to future O&M requirements for each proposed project. Responsibility for carrying out any future O&M is not discussed. It is unclear as to whether any of the components are intended to be one time emergency

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measures with no long term O&M requirements. Future O&M requirements will impact determination as to the appropriate estate and land costs associated therewith. If the projects are cost-shared and the local sponsor has O&M responsibility, permanent interests are required.

Response 4d: Sections 13 and 14 of the revised real estate report address future O & M requirements.

HQUSACE Team Assessment: The response is adequate. This issue is **resolved**.

e. The Real Estate Appendix provided with the draft Report is a single document addressing 15 separate projects. It is noted that separate Economic and Engineering appendices were prepared for each project. The single document approach of the Real Estate Appendix greatly complicates the writing of the appendix as well as its readability. While each of the projects is formulated to address a problem caused by or exacerbated by Katrina, there is a myriad of dissimilar projects in the MsCIP. To assure that real estate is fully and completely addressed for each such project there should be a separate appendix for each project. This is necessary to clearly focus on the unique aspects and considerations of each specific project.

Response 4e: See Section 4.0 of the revised real estate report. A concerted effort was made to address each of the real estate concerns of the 15 projects. The format used is the same one that was used for the REA portion of the Everglades Comprehensive study. This format addressed much the same issues, and was well received and received higher lever authority. Time constraints would not allow for an individual REA to be written for each project. A more detailed supplement will be prepared on a project by project basis, once project approval is received.

HQUSACE Team Assessment: The REP has been extensively revised. The REP revisions **resolve** this review concern.

f. The Real Estate Appendix in two paragraphs contains references to the South Florida Water Management District and properties in South Florida. This is no doubt the result of a cut and paste preparation approach. These obvious incorrect references raise questions as to just how much care and thought went into the underlying statements. This type of gaff should be caught before the document leaves the District. It is essential that a qualified real estate person other than the preparer carefully read the real estate appendix to assure it conforms to sound real estate practices and adequately addresses all issues. I also agree with the ITR comment that the Real Estate Appendix should also be read by someone outside of Real Estate; preferably a planner or other person knowledgeable of the project that can assure the Real Estate Appendix is clear and consistent with the other project documents.

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Response 4f: Because of the expeditious nature of the REA, some language was imported from a variety of sources. This was a typographical error that has been corrected. In regard to the comment of the viewing of the report by others, it should be noted the entire report has been subject to the scrutiny of the PDT team members in Mobile, SAD Real Estate and ITR by others. There input has been received and changes have been made regarding their concerns.

HQUSACE Team Assessment: The REP has been extensively revised. The REP revisions **resolve** this review concern.

g. It is clear that the information available to real estate is inadequate to properly prepare a Real Estate Appendix to fully support a decision document. Nonetheless the REA lacks information that should have been available for inclusion in the report. It is essential that Real Estate be actively engaged in the project formulation process from the outset. This is especially true where there are significant time constraints. Here for instance in a variety of projects the number of parcels could at least be estimated by looking at aerial photos. Additional information should also have been available from on the ground review and talking with local officials.

Response 4g: This report was written without the benefit of site plans, designs or gross appraisal. We made a concerted effort to emphasize the tentative nature of the project descriptions. Please refer to Section 5 of the revised report, first paragraph. It should be noted that conversations were held with local officials, assessors, real estate professionals and appraiser to prepare this report.

HQUSACE Team Assessment: The REP has been extensively revised. The REP revisions **resolve** this review concern.

h. A key purpose of the REA is to “tell the story” as regards land requirements and other real estate issues. Where as here the expedited schedule and various critical details are still to be worked out by other elements; it is important that we take advantage of all information that should be readily available. It is equally important that the REA identifies what facts are missing, outlines how and when the information will be obtained, and discusses potential impact on land requirements.

Response 4h: Revisions were made in the revised report to address how the information will be obtained to write the site specific REAs for the fifteen projects.

HQUSACE Team Assessment: The REP has been extensively revised. The REP revisions **resolve** this review concern.

i. In a certain instances like Downtown Bay St. Louis it appears that real estate is likely to be a minor consideration as it appears that the seawall will be constructed on public lands between the bay and the existing seawall. It does not appear that real estate will influence plan formulation or be a significant cost factor. In such instances it would be acceptable at this stage to prepare a brief REA or section that states the above, identifies any known or potentially foreseeable issues, acknowledges that there is not sufficient data at this time to accurately address the land requirements, and states that a REA will be prepared and submitted for approval once sufficient detail is available later in the process or in PED. The basis for any estimated real estate costs should be set forth. However, in cases like the Franklin County Floodway real estate issues are going to drive plan formulation. It is essential that the Real Estate Appendix be at a level to support a decision document. It seems to be far preferable to devote limited time and resources to those projects where land considerations are or are potentially significant.

Response 4i: An REA is presently under development for Bay St. Louis. It will be submitted as part of the enhanced study being prepared by Engineering. At this time, I would like to frame the components of the real estate plan to keep the same level of effort placed into each of the fifteen projects.

HQUSACE Team Assessment: The REP has been extensively revised. The REP revisions **resolve** this review concern.

j. Specific comments addressing several of the 15 proposed projects follow. The comments are intended to outline the type of issues that need to be covered and to suggest possible methods to address them.

DOWNTOWN BAY ST. LOUIS:

The REA should provide a discussion as to the selected plan; which is to construct a new gravity seawall approximately 6,500 feet in length. The REA should at a minimum contain a narrative discussion as to the siting and footprint of the proposed seawall. For example, where is the proposed seawall in relationship to South Beach Blvd., the existing seawall, and the water? Pictures showing the area on which the wall will be constructed along with a graphic depiction of the footprint or approximate location of the proposed footprint will be helpful.

The REA states that all of the proposed modifications, access and temporary work areas will be within existing rights-of-way (ROW) or NFS properties. What were the rights-of-way referenced in the REA acquired in conjunction with? Who are the ROWs vested in and who owns the land underlying these ROWs? Do the ROWs contain sufficient rights to allow for construction of the seawall?

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The REA needs to discuss the referenced NFS properties. The Engineering Appendix refers to core borings made in connection with a previous Hancock County Section 14 project. Who was the non-federal sponsor and are there any lands that were made available for the Section 14 project that might be used for the proposed seawall. If so, information from the Section 14 project report and real estate records can provide meaningful detail. Is there any relationship between the prior seawall and the one being proposed?

The REA states that no value is assigned for project lands based on the ROWs and NFS lands. If this is a local sponsor project, the REA should discuss that fact and address the NFS's ability to acquire any additional lands that might be required for the project.

The REA estimates Federal administrative acquisition at \$100,000.00. The REA also shows an estimated total real estate cost of \$200,000. It is noted that the 50% contingency would be only a \$150,000. The REA should discuss the number of expected tracts, acreage and ownerships. Are there any current or prior structures within the footprint? What is the basis for the \$100,000.00 administrative cost estimate? If this a cost shared project an estimate of administrative costs for the NFS needs to be provided.

The Economic Appendix states that 80 feet of land will be reclaimed. Is the proposed project within the footprint of the land to be reclaimed?

Any O&M requirement needs to be discussed including who is responsible for the O&M and what interests in land (if any) will be required to accomplish the contemplated O&M?

The REA can use existing data from prior projects, studies or other sources. In summary the REA must provide sufficient detail to address the land requirements, outline potential issues and paint as complete a picture as is possible. The REA should identify what detail information or data is needed to fully address real estate requirements.

Response to Downtown Bay St. Louis: Information has been included in the revised report regarding construction and location specifics. All lands within the project framework are within City or County owned ROWs. It is consistent throughout the revised report and will be noted in Section 4. Because it is not certain any NFS will participate in the project, mention of the term 'Non-Federal Sponsor' has been removed from the project. Value of ROWs and NFS lands are discussed in Section 14 of the revised report. Administrative costs have been revised. All estimates for administrative costs are based costs associated with prior acquisition in the mobile district and research into other federal projects of similar scope. The estimates are on the high side but this is because an assumption has been made that there won't be any NFS participation. Revisions to costs will be made as more detailed information on design is obtained. See item one, paragraph two. This states that lands, ownership, boundary lines and cost estimate are tentative and subject to change even after approval of this report. The

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proposed project is within the land to be reclaimed and no real estate expenditures are expected. O&M is discussed in Section 13 of the revised report. Section 4.0 of the revised report addresses additional data needs. Additional language has been added to enhance to the reader what information resources were used to assemble the REA.

HQUSACE Team Assessment: The REP has been extensively revised. The REP revisions **resolve** this review concern.

Franklin County Floodway:

The Real Estate Appendix (REA) shows a buyout of 30 structures at an estimated cost of \$2,100,000.00 and PL 91-646 Relocation Benefits of \$675,000.00 for a total of \$2,775,000.00. With a 20% contingency the real estate cost estimate shown in the REA is \$3,330,000.00.

Both the Engineering and Economic Analysis show a project cost \$4,760,000.00. This includes demolition costs, engineering, project management and other costs totaling \$4.7 million. Demolition costs are estimated at \$126,000.00. It is unclear as to what comprises the additional costs over and above real estate and demolition. The \$4.7 million figure does not appear to include the \$675,000.00 Relocation benefits identified in the REA. In addition the REA does not show real estate administrative costs for appraisals, title evidence, negotiations, closings, and other related legal and real estate costs.

The REA should state the basis for the estimated value of the structures. Was it derived from tax records, discussions with realtors, or by some other source? The REA does not discuss the current condition of the structures. Are they occupied? If not, are they presently habitable or can they be made habitable? If damaged how will they be valued? If insurance payments have been made, what impact if any will that have on benefits? Perhaps more importantly the REA does not address the availability and cost of decent, safe and sanitary (DSS) replacement housing. The likelihood of using last resort housing to provide must be addressed.

Will the proposed buy out be on a willing seller basis or will condemnation be used if necessary? What is the expected attitude of the owners as to the proposed buy out? What is impact to the project if some sell and others do not?

It is noted that if the project is willing seller, we may not have to offer PL 91-646 benefits. However it may be necessary to offer such benefits to maximize participation. PL 91-646 costs could exceed the \$22,500 per unit estimate in the REA if last resort housing is necessary. If adequate housing is not available in the area, we can go so far as to construct new homes. A Marshall Swift estimate of replacement housing could help establish an upper figure for planning purposes.

The above issues are critical in evaluating the viability of the proposed project. They must be adequately discussed and any assumptions stated. An assessment of the cost of replacement DSS housing is crucial.

Are there any community impacts from the proposed buyouts? What is the normal commute area?

Will the proposed project be 100% Federal or will it be cost shared? If this will be a cost-shared project, the REA should identify and address the sponsor's ability to acquire the necessary interests in land.

Response to Franklin Creek Floodway: The REA costs have been enhanced with a 50% contingency. Structure values were obtained from the Jackson County Office of Appraisal. This was cross referenced with Marshall and Swifts estimates (with an appropriate depreciation cost). The 50% contingency should accommodate Administrative costs for the project if approved. The structures were damaged, but most inhabitants still remain in the houses or have FEMA trailers onsite. Repairs being are being made based on the ability of each property owner. Whether this project will be willing seller or not has not yet been determined by the PDT team. It is assumed it would be willing seller. The estimated of value for the structures is considered generous by the Planner. These values in association with the 50% contingency should accommodate the need for housing of last resort. Data from Marshall and Swifts (with an appropriate depreciation factor) has been reviewed and supports the values. With the massive destruction to homes on the MS coast, the availability of DSS replacement housing is in question. The damage is so extensive that housing will have to be built or sought in other areas of the coast that suffered less damage. The buyout will relocate an entire community. What the social impacts will be are unknown. As with any relocation project Relocation Counsels will make every effort to minimize these impacts. Because the community is rural in nature, the commute time to obtain basic necessities are not expected to change. Cost-sharing is not specifically addressed in the REA, please see response to comment 4c.

HQUSACE Team Assessment: The REP has been extensively revised. The REP revisions **resolve** this review concern.

Gautier Coastal Streams:

The recommended plan will provide immediate relief and restore the problem sites to pre-Katrina condition. The plan provides for the removal of 2ft of sediment at Spanish Trail Road and 3 ft of sediment at the remaining sites. It is designed to reduce flood damages during small to moderate-sized events within the problem area of the City of Gautier. The selected plan will also improve tidal exchange at the mouth of the 4 bayous.

The main Report states that Hurricane Katrina had an adverse impact on Gautier coastal streams that serve as drainage ways due to the deposition of sediment, windblown trees, and other debris. The REA should include a brief discussion of the selected plan for this project and its goals.

With regards to Gautier Coastal Streams the REA assumes acquisition of a temporary work area easement of ten feet running parallel to each bank of the waterway at the various sites along with additional lands required for access and temporary staging areas. The resulting acreage is then valued at \$25,000 per acre and a 50% contingency is applied. All acreages quoted are characterized as Rough Order Estimates based on assumptions made by the realty specialist without the benefit of engineering designs documents. The REA states for each component that the number of affected ownership tracts is unknown, and will be defined in later design documents and that the acreage estimates may change based on the method used for sedimentation removal. Each component references potential acquisition by a local sponsor, but none is identified. The REA addresses the 5 sites as follows:

Old Spanish Trail Site – Trees, debris and sediment are blocking drainage in a previously improved stream for approximately 1750 ft downstream of Old Spanish Trace...The total length of the waterway within the project boundaries is 2750 with an average width of twenty feet...This component requires approximately 1.5 acres of land...An additional cumulative total of 2 acres roads would be required to provide access roads to various transit points along the existing canals...total estimated real estate cost...[with contingency is]...\$131,250.

Graveline Bayou Site – Debris and sediment are blocking drainage in stream for approximately 6900 ft upstream of the mouth...width...approximately 50 ft... Shoaling is estimated to be approximately 3 ft deep This component requires approximately 8 acres of land...An additional cumulative total of 3 acres for access and temporary staging areas roads would be required to provide access roads to various transit points along the existing canals... total estimated real estate cost...[with contingency is]...\$412,500.

Hiram Dr. Site – Debris and sediment are blocking drainage in stream for approximately 2640 ft upstream of the mouth...width of the stream and sediment deposition is approximately 50 ft wide and depth is approximately 3 ft. Shoaling is estimated to be approximately 3 ft deep...This component requires approximately 3 acres of land...An additional cumulative total of 1.5 acres for access and temporary staging areas roads would be required to provide access roads to various transit points along the existing canals...total estimated real estate cost...[with contingency is]...\$168,750.

Ladnier Road Site – Debris and sediment are blocking drainage in stream for approximately 1150 ft upstream of the mouth. The width of the stream and sediment deposition is approximately 40 ft wide...This component requires approximately 2 acres of land...An additional cumulative total of 1.5 acres for access and temporary staging

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areas roads would be required to provide access roads to various transit points along the existing canals... total estimated real estate cost...[with contingency is]...\$131,250.

Seacliffe Bayou Site – Debris and sediment are blocking drainage in stream for approximately 2440 ft upstream of the mouth. The width of the stream and sediment deposition is approximately 50 ft wide and depth is approximately 3 ft... This component requires approximately 3 acres of land...An additional cumulative total of 1.5 acres for access and temporary staging areas roads would be required to provide access roads to various transit points along the existing canals...total estimated real estate cost ...[with contingency is]...\$168,750.

The cost Summary in the main report shows PCA costs of \$750,000. This does not match the real estate costs shown in the REA of \$1,012,500, with contingency. The REA estimates for each component above appear to be for land only and do not include administrative costs. An estimate for the administrative costs to acquire the necessary interests in land needs to be included. A summary of land costs by account should be set out for the proposed project. All potential accounts should be identified and any cost accounts that are unknown at this time should be so noted.

The REA refers to acquisition by “the local sponsor”. If this will be a cost-shared project the REA should identify the local sponsor and address the sponsor’s ability to acquire lands. The REA should also address future O&M requirements.

The Old Spanish Trace component references a “previously improved stream”. The who, when, and nature of the improvement needs to be discussed. Was this a prior federal project? Were any land interests for future maintenance acquired in connection with the improvement? If so who has those rights? The REA should address the same issues for all other components.

The REA should provide an estimate as to the number of tracts over which an easement will be required. At least a rough estimate can be provided based on available data from tax maps, subdivision plats, aerial photos, or other available information. Typical land uses in the project area for each component should also be discussed.

Is there any entity that is charged with maintaining the drainage ways that has an easement or other right that allows for maintenance activity? Is any interest in land needed to accomplish the proposed sediment and debris removal within the streams?

The land cost estimate is \$25,000 per acre. Is this the fee value or an estimate for the temporary work area easement called for in the REA? What is the \$25,000 per acre based on? Does the temporary work area in the REA contain all the necessary rights? What is the anticipated duration of the temporary easement? If acquisition of the lands is a federal obligation, then offsetting benefits would apply and needs to be discussed. If a local sponsor is responsible for lands, then CW policy applies offsetting benefits in determining what is creditable and needs to be discussed.

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The Economic Appendix shows an annual O&M costs for each of the 5 components. Any O&M requirement needs to be discussed including who is responsible for the O&M and what interests in land (if any) will be required to accomplish the contemplated O&M? While not a real estate issue, what is the impact to benefits if the O&M is not accomplished?

The Engineering appendix states that material could be stockpiled to drain and hauled to a landfill. The REA needs to discuss where the material will be stockpiled and what interest in land is required (time and estate). If the proposed disposal area is a commercial landfill, the REA should verify that placement in a commercial landfill is the least cost alternative to acquiring a disposal site. The Engineering Appendix notes the potential for contamination from the deposition of chemicals and petroleum products and that prior to removal sediment from these drainage ways needs to be tested. This could impact use of designated disposal areas.

The possible applicability of navigational servitude needs to be addressed for each of the proposed project sites. It is noted that they appear to all flow into the Mississippi Sound and the main report states that the recommended plan is an effective means for reconnecting tidal exchange. Office of Counsel should be consulted as to the applicability of servitude.

Response to Gautier Coastal Streams: The write-up for this project has been completely revised. In regards to Administrative Costs please see Section 5.3 in the revised report. The phrase 'local sponsor or NFS' has been completely removed from the report. For additional information on future O&M and sponsor's ability to acquire lands, please see Sections 13 and 14 in the revised report. The previously referred to stream was a county project. No Federal funds were used. The wording has also been revised in the new write-up to reflect this. More definitive estimates as to the number of tracts with the project area, and RE Maps will be included in later design documents. Time constraints, project assumptions and an effort to be consistent with RE project details has required this to be defined as more detailed designs become available. Enhancements have been made to the existing report. Further clarifications regarding land use will be made. Depending on what method of sediment removal and disposal is used, we will determine the RE interest to be obtained. All easements will be temporary in nature unless otherwise indicated. All O&M costs are to be assumed by local entities, unless mandated by fater legislation. Enhanced language has been added to the revised REA explaining the assumed value of \$25,000 land cost. Durations of easements will meet the minimum RE interest to construct the project. This will be defined in later design documents. For discussion on offsetting benefits, please see Section 5.4 in the report. In regards to comments on O&M, please see Section 13 of the revised report. Once further design elements are present and a specific construction method is chosen, RE will determine the minimal interest to be obtained for construction of the project. Section 8.0 of the revised report discusses Navigational Servitude.

HQUSACE Team Assessment: The REP has been extensively revised. The REP revisions **resolve** this review concern.

Hancock County Streams:

This project study looked at 4 subdivisions (Shoreline Park and Bayou Philip, Cowan Bayou, Heron Bay, and Hancock County Marina. The recommended plan calls for the removal of approximately 2 ft of sediment and debris at Cowan Bayou and Hancock County Marina. The recommended plan is designed to reduce flooding damages near Cowan Bayou during small to moderate-sized events and to improve commercial navigation and facilitate tidal exchange to Hancock Marina. The REA should include a brief discussion of the selected plan for this project and its goals.

With regards to Cowan Bayou, the REA states:

The drainage canals in these subdivisions vary in width from approximately 15 ft. – 75 ft. with an average of approximately 45 ft wide... The Cowan Bayou canals total approximately 4.7 miles in length ...All acreages quoted are Rough Order Estimates based on assumptions made by the realty specialist without the benefit of engineering designs documents...The number of affected ownership tracts is unknown, and will be defined in later design documents. This component requires approximately 12 acres of land...based on the assumption a temporary work area easement of ten feet running parallel to each banks of the waterway...An additional cumulative total of 3 acres for access and temporary staging areas would be required to provide access roads to various transit points along the existing canals. If the local sponsor has to acquire an interest from adjacent property owners for the 90 acres, that cost will be approximately \$2,250,000 based on an estimated value of \$25,000 per acre. No improvements or relocation assistance costs were included.

With regards to the Hancock County Marina the REA states:

The drainage canals in this area are approximately 100 ft. wide... The canals total approximately 1.9 miles in length ...All acreages quoted are Rough Order Estimates based on assumptions made by the realty specialist without the benefit of engineering designs documents...The number of affected ownership tracts is unknown, and will be defined in later design documents. This component requires approximately 5 acres of land...based on the assumption a temporary work area easement of ten feet running parallel to each banks of the waterway...An additional cumulative total of 3 acres for access and temporary staging areas would be required to provide access roads to various transit points along the existing canals. If the local sponsor has to acquire an interest from adjacent property owners for the 8 acres, that cost will be approximately \$300,000 based on an estimated value of \$25,000 per acre. No improvements or relocation

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assistance costs were included.

The Cost Summary in the main report shows a PCA line item of \$863,000 which equals the total estimated land costs for Cowan Bayou and Hancock County Marina. This does not appear to include administrative costs. An estimate for the administrative costs to acquire the necessary interests in land needs to be included. A summary of land costs by account should be set out for the proposed project. All potential should be identified and any cost accounts that are unknown at this time should be so noted.

The above quoted language from the REA refers to acquisition by “the local sponsor”. If this will be a cost-shared project the REA should identify the local sponsor and address the sponsor’s ability to acquire lands. The REA should also address future O&M requirements.

The REA states that the drainage areas are in subdivisions. Accordingly, the REA should provide an estimate as to the number of tracts over which an easement will be required. At least a rough estimate can be made based on available data from tax maps, subdivision plats, aerial photos, or other available information. Typical lots and impacts should be described.

Is there any entity that is charged with maintaining the canals or that has an easement or other right that allows for maintenance activity? Was any provision made by the County or developers for access for maintenance of the canals when the subdivisions were originally platted? Is there any state or other governmental provision as to canal maintenance? Who owns the land under the canals? Is any interest in land needed to accomplish the proposed sediment and debris removal within the canal? The potential applicability of servitude needs to be addressed for each of the two proposed project sites. It is noted that Hancock Marina they appears to flow into tidal waters and the main report states that the recommended plan is an effective means for facilitating tidal exchange. Office of Counsel should be consulted as to the applicability of servitude.

The land cost estimate is \$25,000 per acre. Is this the fee value or an estimate for the temporary work area easement called for in the REA? What is the \$25,000 per acre based on? Does the temporary work area in the REA contain all the necessary rights? What is the anticipated duration of the temporary easement? If acquisition of the lands is a federal obligation, then offsetting benefits would apply and needs to be discussed. If a local sponsor is responsible for lands, then CW policy applies offsetting benefits in determining what is creditable and needs to be discussed.

The Economic Appendix shows an annual O&M cost for Bayou Cowan of \$64,700 and Hancock County Marina of \$58,300. Who is responsible for the O&M? What interests in land will be required to accomplish the contemplated O&M? While not a real estate issue, what is the impact to benefits if the O&M is not accomplished?

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The Engineering appendix states that material could be stockpiled to drain and hauled to a landfill. The REA needs to discuss where the material will be stockpiled and what interest in land is required (time and estate). The REA should also identify the proposed landfill and verify placement in a commercial landfill is the least cost alternative to acquiring a disposal site.

Response to Hancock County Streams: There has been a complete revision of the project description in the revised report. Please refer to Section 5.3 in the revised report for discussion on Administration Costs. The rewrite does not include the assumption of a local sponsor. For O&M comments please see Section 13 of the revised report. Section 1.0, paragraph 2 of the revised report discusses the tentative nature of this report and the intent to revise cost estimates and property lines in later REA documentation. Office of Counsel will be consulted as to the applicability of servitude to this project. Enhanced language has been added to the revised REA explaining the assumed land value of \$25,000. Durations of easements will meet the minimum RE interest to construct the project. This will be defined in later design documents. For discussion on offsetting benefits, please see Section 5.4 in the revised report. More definitive estimates as to the number of tracts with the project area, and RE Maps will be included in later design documents. Time constraints, project assumptions and an effort to be consistent with RE project details have required this to be defined at a later date. Enhancements have been made to the existing report. Further clarifications regarding land use have also been made. Engineers have stated that sediment removal will be done by using a marsh buggy type back-hoe or other mechanical excavation equipment and dump trucks. Since no design exists at this time for how the project will be implemented, refinement of disposal areas and the method of removal are still subject to change. Discussions with local interests indicated the availability of landfills within a reasonable commute distance to accommodate the sediment. Because of the high demand for such facilities for disposal of Hurricane Katrina debris, the cost and availability of a site will be determined once the plan is finalized.

HQUSACE Team Assessment: The REP has been extensively revised. The REP revisions **resolve** this review concern.

JACKSON MARSH:

The REA states that Jackson Marsh is fronted by Beach Boulevard, which is protected by a concrete seawall and existing beach. The seawall is penetrated in a number of locations by open drainage channels. At the outfall of the drainage channels, concrete box culverts run beneath Beach Boulevard, with guide walls extending out into the Mississippi Sound. Many of these structures were severely damaged by Hurricane Katrina. Typical damages included breaching or complete failure of the extension guide walls and destruction of the box culverts.

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The REA States “It is estimated that 90% of all of the proposed modifications, access and temporary work areas will be within existing rights-of-way only or State owned water bottoms. This estimate is based on very general information and relies on county-wide general knowledge. This is not a site specific component estimate. However an assumption of Federal administrative/acquisition cost is estimated to be \$150,000 For the probable/high-end cost estimate a contingency of 50 percent is included for a total estimated real estate cost of \$225,000.” What is the nature of the 10% not within existing rights-of-way or State owned water bottoms?

It appears that the 12 outlet walls structures to be replaced cross the existing beach and are seaward of the seawall which is adjacent to the highway. Information should be available as to ownership of the impacted “beach” lands. Is there an existing Federal project involving the beach and/or the outlet wall structures? If so, was the land previously made available? If not, who is the underlying owner? What rights are required from the state or other interests? Will the outlet wall replacement be at 100% Federal or will it be cost shared? If this will be a cost-shared project, the REA should identify the local sponsor and address the sponsor’s ability to acquire the necessary interests in land.

The proposed project includes excavating 1,000 cubic yards of sand materials within the drainage channel and placing the material behind the new walls. The report does not show repair and/or replacement of the box culverts. Is that part of a separate project? Does this project contemplate removal of any sand or debris from within the culverts?

The REA does not states that 90% of all of the proposed modifications, access and temporary work areas will be within existing rights-of-way only or State owned water bottoms. It states that the 90% assessment is based on general knowledge and discussions with the County. The REA does not address circumstances which might require additional acquisitions based on these discussions or general knowledge. A more complete discussion of the land requirement should be provided based on the available data.

The Economic Appendix shows an annual O&M cost of \$217,000.00 for the recommended plan. Any O&M requirement needs to be discussed including who is responsible for the O&M and what interests in land (if any) will be required to accomplish the contemplated O&M?

Response to Jackson Marsh: The REA has been revised to reflect 100 percent of the activities will be within existing rights-of-way or State owned water bottoms. Section 14.0 of the revised report discusses local sponsorship. The State of Mississippi owns the lands where the outlet structures are located. The report has been revised to address the issue of additional acquisition. O&M is discussed in Section 13.0 of the revised report.

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HQUSACE Team Assessment: The REP has been extensively revised. The REP revisions **resolve** this review concern.

Upper Bayou Casotte:

The recommended plan is calls for the removal of approximately 2 ft, of sediment over an average 15 ft width and length of 2.71 miles. It is designed to reduce flood damages during small to moderate-sized events within the problem area of Moss Point. The Economic Appendix states that there appears to be significant debris in the drainage way, especially at some of the culverts. The REA should include a brief discussion of the selected plan for this project and its goals.

With regards to Bayou Casotte the REA states:

The area is in the city of Moss Point near the intersection of Hwy 63 and US Hwy 90. The area is relatively flat, with some small interconnecting ditches apparently draining different directions. The drainage way varies in width from approximately 9 ft – 15 ft. with an average of approximately 12 ft. The length is approximately 2.71 miles... All acreages quoted are Rough Order Estimates based on assumptions made by the realty specialist without the benefit of engineering designs documents...The number of affected ownership tracts is unknown, and will be defined in later design documents. This component requires approximately 5 acres of land. This is based on the assumption a temporary work area easement of ten feet running parallel to each banks of the waterway... An additional cumulative total of 2 acres for access and temporary staging areas roads would be required to provide access roads to various transit points along the existing canals. If the local sponsor has to acquire an interest from adjacent property owners for the 7 acres, that cost will be approximately ... [with a 50% contingency] ...\$262,500.

The REA estimate of \$262,500 does not include administrative costs. An estimate for the administrative costs to acquire the necessary interests in land needs to be included. A summary of land costs by account should be set out for the proposed project. All potential accounts should be identified and any cost accounts that are unknown at this time should be so noted.

The above quoted language from the REA refers to acquisition by “the local sponsor”. The REA should identify the local sponsor and address the sponsor’s ability to acquire lands.

The REA should provide an estimate as to the number of tracts over which an easement will be required. At least a rough estimate based on available data from tax maps, subdivision plats, aerial photos, or other available information should be provided. Typical land uses in the project area should be described.

Is there any entity that is charged with maintaining the drainage ways that has an easement or other right that allows for maintenance activity? Is any interest in land needed to accomplish the proposed sediment and debris removal within the drainage ways?

The land cost estimate is \$25,000 per acre. Is this a fee value or an estimate for the temporary work area easement called for in the REA? What is the \$25,000 per acre based on? What is the anticipated duration of the temporary easement? Does the temporary work area in the REA contain all the necessary rights? If acquisition of the lands is a federal obligation, then offsetting benefits would apply and needs to be discussed. If a local sponsor is responsible for lands, then CW policy applies offsetting benefits in determining what is creditable and needs to be discussed.

The Economic Appendix shows an annual O&M cost for Upper Bayou Casotte of \$21,000. The main report states that O&M costs will be minimal and consists of visual inspections only. The Engineering Appendix shows an estimated cost for clearing on a 25-year interval. Any O&M requirement needs to be discussed including who is responsible for the O&M and what interests in land (if any) will be required to accomplish the contemplated O&M? While not a real estate issue, what is the impact to benefits if the O&M is not accomplished?

The Engineering appendix states that material could be stockpiled to drain and hauled to a landfill. The REA needs to discuss where the material will be stockpiled and what interest in land is required (time and estate). If the proposed disposal area is a commercial landfill, the REA should verify that placement in a commercial landfill is the least cost alternative to acquiring a disposal site. The Engineering Appendix notes the potential for contamination from the deposition of chemicals and petroleum products and that prior to removal sediment from these drainage ways needs to be tested. This could impact use of designated disposal areas.

Response to Upper Bayou Casotte: Revisions have been made in the revised report to address your comments on land costs, Administrative Coast and reference to 'Local Sponsor or NFS' as indicated earlier in these responses. More definitive estimates as to the number of tracts within the project area and RE Maps will be included in later design documents. Time constraints, project assumptions and an effort to be consistent with RE project details have required this to be defined at a later date. Enhancements have been made to the existing report. Further clarifications regarding land use have also been made. No public entities reserve any type of easement estate over the proposed project. Enhanced language has been added to the revised REA explaining the assumed land value of \$25,000. Durations of easements will meet the minimum RE interest to construct the project. This will be defined in later design documents. For discussion on offsetting benefits, please see Section 5.4 in the report. We concur that additional information needs to be obtained relative to the nature of the sediments to be removed from these

areas.

HQUSACE Team Assessment: The REP has been extensively revised. The REP revisions **resolve** this review concern.

5. BAYOU CADDY PROJECT

a. Bayou Caddy Project. The Bayou Caddy Ecosystem Restoration Plan appears to be more a beneficial use of dredge material site for the Federally authorized Bayou Caddy navigation project than a response to hurricane and storm damage caused by the Hurricanes in 2005. In fact, the plan had been developed in U.S. Army Corps of Engineers, “Preliminary Restoration Plan for Cadet Bayou Marsh Creation Project,” Section 204 Aquatic Ecosystem Restoration in Connection with Construction and Maintenance Dredging of an Authorized Project, Mobile District, August, 2003. It appears that the breakwater alternative provides the same benefit at half the cost and should be the recommended plan.

Response 5a: The Bayou Caddy Ecosystem Restoration Plan does beneficially use dredged material to restore 18 acres of lost emergent tidal marsh habitat. In addition, this project will help protect nearly 1,000 acres of rapidly disappearing marsh in that area. While a long-term problem with erosion has impacted Bayou Caddy over a number of years, Hurricane Katrina dealt the marsh a much more severe blow. Losses exceeding that of the previous thirty years were suffered during this one event. The breakwater would reduce erosion due to wave action. However, it would not entirely stabilize the ecosystem and would not significantly restore lost habitat. Further, while the breakwater would create some fish habitat, it would not have near the benefits of having an aquatic nursery associated with the placement and planting of dredged material.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

b. Problem Statement for Bayou Caddy. The problem statement for Bayou Caddy implies that loss of coastal resources at this location is due, in part, to an ongoing erosion problem. The last sentence of the problem statement read “Estimates of up to one-half mile of aquatic resources have been reported by the State to have been lost with an average erosion loss of 12 to 13 feet per year”. This statement is inconsistent with the stated focus of the near-term projects. In addition, the project information report does not adequately justify why it is important to replace the cumulative loss of wetlands at this location and not just protect the shoreline to halt further losses.

Response 5b: The focus of the near-term projects not only addresses problems created by the storms of 2005, but also on prevention of damages due to future storms. The report has been modified to include a description of why this project is important

with regard to future storm surge. Restoring the large land mass which has been lost will allow future storm surges to dissipate sooner, lessening the impacts of storm damage further inland.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

6. COMPREHENSIVE PLAN STUDY SCHEDULE. The 24-month schedule presented for the Comprehensive Plan and Programmatic EIS does not appear to involve HQ until April of 2007, 1½ months prior to release of the draft report. Is the district not planning on having a FSM? Particularly for such a large-scale and complex plan that the Comprehensive Plan will prove to be, it would be beneficial if the vertical team - including HQ - were involved at an earlier stage than when the draft report is almost completed and ready for public release.

Response 6: The revised study schedule reflects the latest understanding of study activities provided by Headquarters' anticipation of future report processing, review, and approval needs. The PDT does not plan on having an FSM for the Interim Report, since the level of detail required at the IPR (8 June) was of more than the level usually gone into at an FSM. The Comprehensive Plan phase will contain numerous milestones, including IPRs, where needed, on many technical product milestones. The PDT agrees that constant coordination will be a necessary activity in the successful development of a good final package of recommendations, just as was done with the Interim Report effort.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

7. MISCELLANEOUS

a. Project Priorities. The report does not rank or prioritize the 15 Near-Term Improvements that are recommended. Although this is not required, the report should provide decision makers some notion of which project may provide the [Responders note: *comment ended here as provided by OWPR, but presumably reflected sentiment that PDT should recommend only best projects among those examined*].

Response 7a: No, the PDT did not rank the near-term improvements, as it is felt that those 15 recommendations are the priority among the over 180 potential projects that were identified for evaluation by the PDT. The PDT should not prioritize recommendations that have already been packaged as a suite of priority recommendations; nevertheless, the PDT has provided a table, both in the Executive Summary and Main Report, that provides decision-makers individual project achievements and benefits, should prioritization be necessary.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

b. Prior and On-going Studies, Reports, and Programs. The Corps is involved in several studies, programs, and demonstration projects that may assist the district in the future analysis of coastal sand movement, such as: Regional Sediment Management Research Program; National Shoreline Erosion Control Development and Demonstration Program; National Shoreline Management Study; and the Flood and Coastal Storm Damage Reduction Program. The district should include these in the “Prior and On-going Studies, Reports, and Programs” section and in the sections discussing future work under the Comprehensive Plan.

Response 7b: Each of the suggested resources has been both identified in the section on “Prior and On-going Studies, Reports, and Programs”, as well as integrated in the discussion on the Comprehensive Plan. Team members will integrate those resources that add value to the plan formulation and selection process.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

c. Guidance. The term guidance is used throughout the report in reference to Public Law. The law may generate implementation guidance but the law itself is directive not guidance. Do not refer to requirements of public law as guidance. Please revise the report as necessary.

Response 7c: The term “guidance” has been deleted in reference to Public Law. The following of said language is now referred to as a requirement.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

d. Typographical Errors

1.) Second paragraph of Section 2.1.6.3; “Tidal marsh is” should be changed to “Tidal marsh was” to match the tense of the first sentence.

Response 7d(1): That correction has been made.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

2.) Last paragraph on page 61; “presentation an NED plan” should be changed to presentation of an NED plan”

Response 7d(2): That correction has been made.

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HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

3.) Second paragraph on page 62; “24-moth” to 24-month

Response 7d(3): That correction has been made.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

d.) First sentence of page 64; “large” should be “larger”.

Response 7d(4): That correction has been made.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

4.) Page 4 of the Bayou Caddy plan in the last paragraph “Using ruble form damaged” should read “Using rubble from damaged”

Response 7d(5): That correction has been made.

HQUSACE Team Assessment: The response is adequate; this issue is **resolved**.

JAMES EWARREN, PE
Policy Compliance Review Manger